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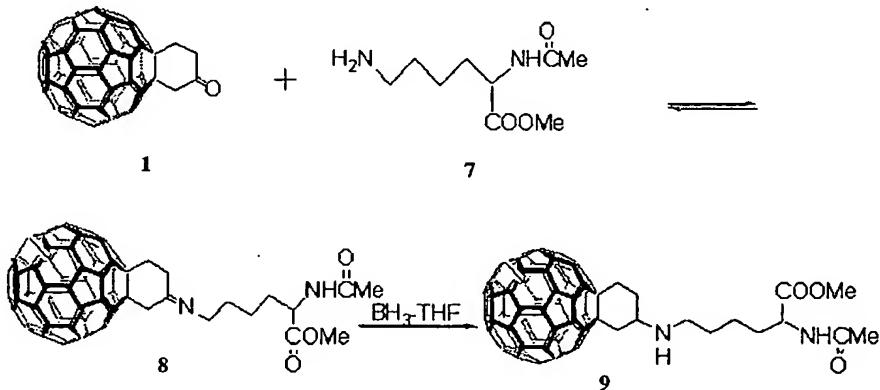
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[Continued on next page]

(54) Title: FULLERENE BASED AMINO ACIDS



Scheme 3

(57) Abstract: The present invention is directed to a series of new compounds, combining the unique properties of fullerenes and bio-active amino acid residues, and to methods for making such compounds. The present invention is directed toward fullerene-based amino acids, and to amino acid residues, peptide chains, proteins, and polypeptides made from such fullerene-based amino acids. The present invention is further directed to amino acid residues, peptide chains, proteins, and polypeptides comprising such fullerene-based amino acids and into which such fullerene-based amino acids have been incorporated. Exemplary compounds have been prepared, and these compounds have been characterized and confirmed with infrared (IR) spectroscopy, nuclear magnetic resonance (NMR) spectroscopy, mass spectrometry (MS), etc. These new compounds, which are additions to the existing amino acid residue family, may potentially possess useful pharmaceutical application and may provide a new platform for further exploration in cancer therapy, and peptide and protein engineering.

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